Arizona Miner. E. A. BENTLEY, Publisher.

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A square equals ten lines of this letter. One square or less, one insertion, \$3,00. Each subsequent insertion, \$1,50. One square standing for three months, \$10,00. For six months, 15,00.

larger quantities. JOB WORK :

All kinds of job work executed to order, with dispatch, and at reasonable prices.

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PRESCOTT, ARIZONA.
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NOTARY PUBLIC. PRESCOTT. ARIZONA TERRITORY.

European Metallurgical Works.

Bryant Streat, between Third and Fourth, San

The proprietors having recently added to this Establishment the latest and most approved Machinery for the Reduction and Testing of ORES of all sorts-either in large or small quantitiesare prepared to test Ores by such process as may be ascertained best suited to their chemical charneter, after a careful analysis being first finde, Assays, either in the hund or dry way, made of all Minerals. Also, Refining and Cupellation at-8. P. KIMBALL. J. R. MURPHY

PRESCOTT ADVERTISEMENTS.

BILLIARDS.



THE "QUARTZ ROCK" SALOON

is now open to the public.
THE BAR will be furnished with the best of Liquors. For proof, call and see DOC & JOE.

LIVERY AND SALE STABLE.

The undersigned having built a large stable and corral, with sheds, for the accommodation of the public keeps constantly on hand Reling Horses, also Carriages and Carriage Horses, for sale or let o reasonable terms. WM. H. HARDY. JAMES TUTTAE, Agent.

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Hardware, Tin and Sheet Iron Ware, stoves and Miner's Tools, for saie by WM, H. HARDY, Prescott, Arizona, Dec. 19, 1865.

JAMES GRANT

Flour, Bacon,

Lard,

Butter,

Cheese, Coffee,

Sugar, Dried Fruit,

Candles, Soap,

> Honey. Coal Oil,

Can Fruits and Vegetables,

gether with a general assortment of

ROCERIES AND PROVISIONS,

FOR SALE CHEAP AT THE

CASH STORE.

Prescott, January 20, 1866.

PRESCOTT ADVERTISEMENTS.

CAMPBELL & BUFFUM

West side of the Plaza, Prescott, Arizona, GENERAL DEALERS IN

GROCERIES & PROVISIONS, Foreign and Domestic Wines and Liquors,

TOBACCO AND CIGARS. And a general assortment of such articles as familics and miners need. Our goods are all of the best quality, and at reasonable prices.

POR CASH ONLY. JOHN G. CAMPBELL, W. M. BUFFUM. Prescott. June 1, 1866.

CELEBRATED ELASTIC STITCH

Sewing Machines

Are offered to the public as preferable to all others for the following reasons:

ing of thread is necessary.

3. They see with equal facility all fabrics, the most delicate and the heaviest, and with all kinds of thread, silk, cotton or linen.
Wheeler & Randall's, Hepburn & Peterson's Amal gamaiers, and all other kinds, furnished at short no-kinds of thread, silk, cotton or linen. 4. They stitch, hem, fell, cord, bind, tuck, gather, quiit, braid and embroider with equal facility.

5. They fasten both ends of the seam by their own city and Sacramento. operation, and the scam is so strong and clastic that it never breaks, even on the bias.

6. The scam is more plump and beautiful, retaining its plumpness and bosity after washing bet-ter than any other, and though out at every sixth elitch remains firm, and neither runs nor ravels in wear.

7. The seam can be removed in altering garments after proper sustructions without picking or cut-

. These machines are more easily kept in order than any other, and need not be taken apart to

Watching and varying the tensions upon the thread, necessary in other machines, is unnecessary in these. The tension being once ad-justed on the Grover & Baker Machine, any ount of sewing may be done without change.

40. They make beautiful embroidery without any change of arrangement, simply by inserting threads of suitable sizes and colors for this pur-pose. They are the only machines that both embroider and sow perfectly.

11. The work done by these machines cannot possibly be equalled by any other, and it has al-

De Upwards of 150,00 of these machines are able sewing machine stitches—the Graver & Balock stitch. These stitches have each their pecular merits and excellencies. For some purposes the one stitch is letter scapted, and for some pur-poses the other, and a selection should always be made aerordingly. The Grover & Baker S. M. Co. manufacture, in addition to their celebrated Grover & Baker stitch muchines, the most perfect shuttle or lock stitch machines in the market, and afford purchasers the opportunity of selecting, af-Situated on Granite street, having been enlarged ter trial and examination of both, the one best and relitted, with the addition of a New Table, making suited to their wants. Other companies manufacsuited to their wants. Other companies manufac-TWO NEW TABLES OF BEST PATTERN, for this opportunity of selection to their customers. The Grover & Baker S. M. Co. are the on-

ly parties who manufacture and sell mechines which both sew perfectly and embroider perfectly. Needles can be easily sent to all parts of the country, and small amounts in payment therefor GROVER & BAKER SEWING MACHINE CO.

ROBERT MEACHAM, Agent,

Cortez Street, near plaza, Prescott, Arizona.

QUARTZ MOUNTAIN MILL.

The attention of the public is called to the fact that we have renewed facilities for the manufacture of all kinds of lumber for building purposes, for mills and mining. Having become satisfied with the credit system as now practiced here, we have concluded from this time to credit no one, and have fixed theprices of immiser at the mill as follows:

For good merchantable lumber, \$60 per M. Second quality, \$30 per M. Clear lumber, \$100 per M.

Terms, each on delivery, payable in U. S. gold coin, or its equivalent in currency Prescott, Nov. 21, 1865.

G. W. BARNARD,

SADDLER AND HARNESS MAKER,

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Cabinet Makers,

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On hand a superior article of CHAIRS, FALL LEAF TABLES,

BED STEADS, WASH STANDS,

And will make any article of furniture to order on the shortest notice.

Particular attention is called to persons wishing to build, that by furnishing plans and specifica-tions, from twenty-five to fifty per cent. can be saved by submitting the same to the undersigned. Prescott, July 6, 1866. DUNN & COLLIER.

ADMINISTRATOR'S NOTICE.

Masonic Notice.

The stated meetings of Aztlan Lodge, U.
D., of Free and Accepted Masons, will take ce on the last Saturday evening of each month master masons of good standing are invited to lead.

J. T. ALSAP, W. M.

Estate of T. F. McLean, deceased.
Notice is hereby given by the undersigned, administrator of said estate, to the creditors of and all persons having claims against said deceased, to exhibit the same, with the necessary vouchers, within one year from the date of this notice, to the undersigned, at Tucsou, Arizona Territory. Dated July 25, 1866.

1413 SOLOMON WARNER, Administrator. Estate of T. F. McLean, deceased.

SAN FRANCISCO ADVERTISEMENTS.

WM. FAULKNER & SON.

IMPORTERS OF Cards and Card Stock, all Color; Printing Ink, all Colors; Bronzes, Varnish,

Printing Presses, Type,

PRINTING MATERIALS OF EVERY DESCRIPTION.

OLD TYPE METAL. Machinists may at all times be supplied with old type metal, by calling at 411 Clay Street, San Francisco.

ÆTNA IRON WORKS,

SAN FRANCISCO,

QUARTZ MILL, SAW MILL,

1. They are more simple and durable, and less B. Sole agents for this coast or use occurrence able to derangement.

Water Wheel," of which there are now upwards of 1500 in use in the Atlantic States and on this Coast.

Circulars giving full particulars forwarded to any ne desiring.

Wheeler & Randall's, Hepburn & Peterson's Amal

Dunbar's Piston Packing.

Any number of recommendations can be furnished for this l'acking from parties using the same in this

Hanscom's Crusher,

The best now in use in this State. Particular attention will be given to drawings of all kinds of machinery. Parties purchasing ma-chinery will be furnished with a set of drawings of the same free of expense.

By strict attention to business we hope to merit the patronage of the public, and shall always endeavor to be prompt and give satisfaction to our on Hanseem & Co.

CLARKE'S

NEW SCHOOL GEOGRAPHY. By Charles Russell Clarke, A. M.

This is a new School Geography of the world. It has been prepared by a practical teacher, of thirteen years' experience, for use in the Pacific States. The demand for it seemed imperative, owing to the vast-ness and nevelty of the interests of this portion of the Union, and meagre space allotted to them in other geographies. It seems only reasonable that a pupil in California, Oregon, Nevada, Washington, Idaho, Montana, Utah, Colorado, New Mexico, or Ari-

possibly be equalled by any other, and it has always received the first premium over all competitors wherever exhibited.

12. Every machine guaranteed, and instruction to purchasers gratis.

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15. Every machine guaranteed and instruction to purchasers gratis.

16. Nondama, Utah, Colorado, New Mexico, or Arterior and the second from a few imperfect statements, and small, insorrect maps.

The special features of this Geography are the following: 1. A large amount of text devoted to the Pacific States. The sections and interests of each are reviewed in detail. 2. New and correct The matter pertaining to the Pacific coast is placed foremost, so that the papil begins his study of the world at home. 4. The States of the whole Union are re-grouped on a natural basis. 5. When foreign countries are treated, especial attention is directed to the markets and supply ports of the Pacific States and a fuller exhibition than ordinary is given of those countries with which the Pacific States hold direct intercourse it will Mexico. Central America.

These Celebrated Pens are of Genuine America foreign can Manufacture, and comprise every style in the flour), very little of it would have its film of fire: its use in blasting is only possible through the patent fuse: a shower of sparks crushing, although on account of much of it will not explode it: the application of the direct would not float; part of it would sink to the bottom, part of it would remain floating between the bottom and the surface of the water, the film of air boiling water; concussion will not explode it. direct intercourse to wit Mexico, Central America. South America, Eastern Asia, Jupan, and Oceanica, British Commbia and Vancouver Island are treated with especial fullness. 6 The book aims to serve as the training book of a habit of connecting cause and effect. Thus the great laws of Physical Geography are constantly brought before the pupil's attention.

New generalizations are presented in connection Hemispheres, the Continents, and the Grand Divisions. new divisions and analyses are presented in connection with Astronomical and Mathematical Geograph Industrial Geography, Political Geography, and the Geography of Civilization. The definitions in Physical Geography are filustrated by home examples.

9. This book must serve a purpose with pupils stadying it, of deepening their interest in their own
State, and cultivating a patrictic attachment to their Pacific home. 10. The Map Questions are reduced in number: and the Text Questions are written so as to call out the causes of facts, as well as the facts themselves. 11. The mechanical execution of the

work to wit: the printing the maps, and the illustrations, is of the first order.

Published by H. H. BANCROFT & CO., Booksellers and Stationers, San Francisco, Cali-

ST. LOUIS ADVERTISEMENTS.

WILLIAMS' ADVERTISING AGENCY,

CLOCKS.

Manufacturer's Depot, No. 88 North 5th Street, corner St. Charles,

ST. LOUIS, MO.

Here will be found every variety of

AMERICAN CLOCKS, AND CLOCK MATERIALS,

with all the advantages of the Eastern market in regard to both selection and price. Send for illustrated catalo HENRY W. EDES. Proprietor.

PLANT & BROTHER,

Established in 1845.

Agricultural Machinery.

Rubber and Leather Belting.

Garden and Field Seeds, Hose, Packing and Pumps,

Sign of the GILT PLOW, AN

PRESCOTT ADVERTISEMENTS. NEW AND SPLENDID GOODS



SPORTSMAN'S EMPORIUM

CORTEZ STREET, PRESCOTT.

I would respectfully call the attention of my friends and the public in general to my new stock of goods. just received from San Francisco consisting of

Rifles, Pistols, Powder Horns and Flasks,

Holsters,

Ely's Double Water-Proof Gon Caps. Ely's Metal Lined Caps for Colt's Revolvers of the water.

Elv's Buckshot Wire Cartridges,

Buckshot. Sharp's and Maynard's Primers. Also,a splendid assortment of CUTLERY embracing

Bowie Knives, Hunting Knives, and Pocket Knives, in great variety.

REPAIRING. Guns, Riffes, and Pistols repaired to order in the est manner. WM J BERRY Prescott. Sept 19, 1865.

NEW YORK ADVERTISEMENTS.

UNITED STATES

STEEL PEN WORKS

R. ESTERBROOK & C' ..

Factory, Camden, New Jersey.

WARRHOUSES-403 Arch Street, Philadelphia 42 John Street, New York.

Lots made to order, of any puttern or stamp re-For sale to the trade at the Manufacturer's

Warehouses, as above; and at retail by all Sta United States. R. ESTERBROOK & CO.

400 Broadway, New York. The attention of the public and the trade is in. as a decaydring agent—that is if the oxyde degrees it explodes; into, it has note concentrated to our New Scale Seven Octave Rose Wood of some base metal should be in contact with tration of power than gunpowder; it is completely trade of some base metal should be in contact with Plane Fortes, which for volume and parity of the gold, it will remove it or clean the gold, posed of carbon, hydrogen, nitrogen and oxytone are unrivaled by any hitherto offered in this and it will keep the mercury clean. market. They contain all the modern improve-ments, French grand action, harp pedal, iron frame, over strung bass, etc., and each instrument being made under the personal supervision of Mr. J. H. Gravesteen, who has had a practical experience of over thirty years in their manufacture, is

Piano Forte Manufacturers.

fully warranted in every particular. The "Grocesteen Piano Forte" received the high-est award of merit over all others at the Celebrated World's Fair!

Where were exhibited instruments from the best when that takes place, and not until then, makers of London, Paris, Germany, Philadelphia, does the sodium produce the beneficial remakers of London, Paris, Germany, Philadelphia, Baltimore, Boston and New York; and also at the American Institute for five successive years, the gold and silver medals from both of which

can be seen at our warerooms,

preclade competition PRICES. No 1, Seven Octave, round corners, Rose wood Plain Case,

No. 2, Seven Octave, round corners, Bose wood Heavy Moulding, No. 3, Seven Octave, round corners, Rose wood Louis XIV style, TERMS-Net cash in current funds.

SANTA FE

Stage Company.

Descriptive circulars sent free.



Through route from Denver, Colorado, to Kansas City, Missouri, Santa Fe, New Mexico, and the Arizona Gold Mines.

U. S. Mail, Pussenger & Express. Coaches leave the office of the company in Denver, Colorado, every Wednesday morning, for Kansas City, Missouri, and Santa Fe, and other points in New Mexico, making quick time, and affording every reasonable accommodation to Mr. Cook was three years in the army, was passengers and shippers of express.

Coaches leave Kansas City every Friday for

by this express will instruct forwarders from the East to mark goods "Care Santa Fe Stage Company, Kausas City,

SODIUM AMALGAMATION.

WHY DOES SODIUM ASSIST THE AMALGAMA-TION OF METALS.

the use of sodium as an assistant in amalgamines of argentiferous galena are among the mating metals, I prepared the result of the most permanent, and in skilful hands, the following experiment for publication. Cir- best producing mines in the world. Galena cumstances delayed it, but I now give it to ores yielding silver and a large per centage of the interested for what it is worth. Having lead, are regarded as invaluable to any silver given my views to several practical men in bearing region, not only for the reason that this city, they tell me that the theory exp ains many things which they have met their ties of bullion, but that they will also furnish experience that were incomprehensible to the skilful smelter with a principal agent for

THE EXPERIMENT.

Take a clean tumbler and fill it about two thirds full of clear water; then drop a little pulverized metallic powder upon the water; Gold dust or bronze, (such as printers use, and nearly every printer has it), or silver powder will answer, provided it be sufficienty fine. Then stir it smartly with the handle of a spoon or the blade of a knife. It will be seen that the powder will not sink in the water; but on the contrary, the more it is stirred the more obstinately it keeps at the top. When you have sufficiently demonstrated to your own satisfaction the almost impossibility of sinking the metal, which, being heavier than the water, by the laws of grav-ity should sink, drop into the tumbler a little caustic potash or soda, and stir a little, the powder will then be seen to leave the top. and in a short time will settle at the bottom

THE CAUSE OF THE METAL PLOATING.

Atmospheric air adheres with great tenacity to any highly polished surface, and is very difficult to displace. It preserves a knife blade by preventing the moisture from get-ting to it to oxidize it. Dip a knife-blade or a razor into water, and drawing it out you will find that it has not been wet a film of air interposing between it and the water. So with each particle of dust which you placed on the water in the tumbler. Notwithstanding its being so exceedingly fine, it is surrounded by a layer of atmospheric air as thick as that on the surface of a knife-blade. The particle being round and smooth, no mechanical means which you can use will displace the air so that the water can get to it, and the air being lighter than water, acts as a balloon to sustain the piece of metal. If you agitate it in the water with a spoon, or force it down by any other means, the air will still stick to its piece of metal, and as mon as you let it alone it will rise to the surface. How pending, the following evidence was given: it is that the alkali makes the air let go of its hold on the metal, I do not know. The ex- fence, testified that he was the inventor of metal sinks.

Application of this Treatment to Amalgamating the impulpable gold dust in quartz rock, and STEEL PEN MANUFACTURERS its theory.

quartz rock to be as fine as the dust which goes out when the match is withdrawn: it this experiment is made (and much of it is does not explode by the mere application of and the quartz dust fighting for the mastery, In Hamburg the experiment was tried of the air trying to take it to the top, and the throwing it up in a rocket, and a fall of 1,000 quartz dust trying to pull it down. As long feet did not explode it. You can explode the Booksellers and News Dealers in the as the particle of gold or silver remains cov. oil in gun powder without setting fire to the ered with the air, the mercury cannot come in gunpowder; a drop of nitro glycerene develcontact with the naked gold, and not with opes in bursting about 2,000 degrees; believe the gold protected by a mantle of atmospheric the explosion at San Francisco was caused by air. Therefore in order to the effectual amal- the oil leaking into the saw-dust packing, gamating of gold or silver dust from quartz thus heating the oil. Water and saw-dust the air surrounding the particles of dust. oil are, first, it is a liquid; second, it is poilleat will do this partially, but caustic pot-ash or soda will do it effectually. It also acts as a deoxydizing agent—that is if the oxyde degrees it explodes; fifth, it has more concen-

> About one pound of caustic potash or soda wall was caused by nitro glycerine.
>
> will remove the air from metal that is immersed in five gallons of water. Does not nitro-glycerine for blasting purposes; it could this explain the cause of the advantage derived from the use of sodium? If this is the great heat to explode it. true theory, whence the necessity of using the expensive metal itself? It cannot be denied that the sodium is oxydized and becomes sods, and is dissolved in the water in the pan-

sults. I am aware that alkalies have been used it amalgamating pans with partial success. But By the introduction of improvements we make have they been used intelligently? Common a still more perfect Piano Forte, and by manufacture potash or sada of commons in the best state. potash or soda of commerce in the best state turing largely, with a strictly eash system, are en-abled to offer these instruments at a price that will in which you can buy it, is composed of forty or fifty per cent of carbonate. In transporting it to the mines, and from exposure to the air when opered, a much larger per centage is turned into carbonate, and in that state is 8225 of but little use to disperse the atmospheric your expedition. air. To be effectual for this purpose, it must

\$350 be as nearly caustic as possible In regard to the electrical effect resulting from the use of alkalies in the amalgamating pans, my experience proves that it cannot be otherwise than highly beneficial. Zinc, lead and antimony would be taken up in large quantities by a caustic alkaline solution when contained in an iron vessel. I have used, and for some purposes preier to all others, especially for precipitating the reguline copper, a battery composed of iron and zinc in a solution of caustic potash.

WM. HILMER. San Francisco, 1866.

THE LAST .- Lemuel Cook, the last of the officially recognized Revolutionary soldiers, died on the night of May 20th, at Clarendon, Orleans county, New York, at the age of 102 Mr. Cook was three years in the army, was present at the surrender of Cornwallis at Yorktown, and took an honorable discharge Merchants and others desiring goods forwarded at the close of the war, signed by Gen. Washington.

SILVER LEAD ORES.

The silver lead ores, of which the ledges in Nevada abound, are said to be overlooked by prospectors, and attract but little attention Sometime since, and before I had heard of or interest. Yet it is a well known fact that them, and they have urged me to make it the smelting of other classes of silver and gold public. Western method of mill work. The Nye County News gives an estimate of the cost of

the treatment of the ores by milling and smelting process in Nevada as follows: To erect a good twenty stamp mill capable of reducing tifteen to twenty tone per day, will require an outlay of one hundred thousand dollars, and when running require the help of thirty seven men. We have allowed fifteen to twenty tons as the result of such a mill's daily work, although experience teaches us that the amount is far above the daily average. The fluxes for mill process will cost more than double the amount required for smelting. The cost of putting up a sufficient number of Mexican blast-furnaces to treat an equal amount of ore, will not cost to exceed three thousand dollars, and require the help of twenty-five men. The monthly difference in favor of this class of smeltiny furnaces, with the same expacity for the reduction of the ores as a twenty stamp mill, will be as follows. to wit : difference on hired labor, \$1,200; cost of fluxes, \$1,700; interest on capital invested at two per cent per month, \$4,840; total, \$5,840. The number of furnaces and consequent increased power of working, can be multiplied with a comparative small outlay of capital to meet the increased production of ores, or, in plain words, with an additional expenditure of fifteen hundred dollars. the furnaces could be increased to double the capacity, and a smelting establishment capable of reducing two hundred tons daily, can be erected for a sum not exceeding fifteen thousand dollars; whereas it would require at least thirteen twenty stampmills, at a cost of nearly as many hundred thousand dollars,

to do the same amount of work. MORE ABOUT NITRO-GLYCERINE.

At an examination before the United States Commissioner at New-York, in a case then Alfred B. Nobel, being sworn for the deperment shows that it does do so, and the the practical adaptation of nitre-glycerine to blasting purposes: nitro-glycerene is only ex-plosive under certain conditions, as is the case

with many other substances not considered explosive : nitro-givocrine is not an inflamma-Suppose every particle of gold dust in not eatch fire like turpentine or spirits, but rock, some means must be used to disperse will bent to 360 degrees; the properties of the

not be exploded by concussion, and required

THE YANKEE DI VERNON. The following letter, written to Capt. Fisk and published in the St. Paul (Minn.) Press, explains itself:

SPRINGFIELD, Mass., March 28, 1866. My dear Sir: I see by a Boston paper that you are to lead; in May next, your fourth expedition overland from Minnesota to Montann. I have a brother out there, a miner, in the diggings called Last Chance. He has written me to join him. If you can speak a word of encouragement, I should prefer to make the trip across the plains under the mgis of I am a schooms'am, and have recently come

whom it were praise to call devils; and I'm quite certain I shall not be afraid of mere surages, if such are to be encountered in the ourney to the mountains.

Minds as well as mines are to be developed. out there-so many families I know have gone and are going there. I have means to pay my fare, and to bring a saddle-beast and

from eight months' teaching in the south. I

had the courage to stand out against monsters

equipments beside. I can ride with the best, and should it come to that, can shoot, spo. Please to say if I cannot go to Montana with your expedition, just as well as not. Whatever your answer, let it be understood that I have made up my mind to go with you

To Capt. James L. Fisk, Commanding Expe-

Very respectfully yours,

dition to Montana.

FREIGHT TRAMS EXEMPTED. Congressman Higby writes as follows from Washington, relative to teamsters: "You can say to the

Teamsters' Association that the internal revenue bill just passed by the House entirely exempts freight teams from taxation. I mean by freight teams those teams conveying merchandise and property of all kinds. This Missouri."

ARIZONA.—The New Mexico Press says will be good news to their husiness will be good news to their husiness that a colony is being formed in St. Louis for St. Louis for Agency of George E. Crater, opposite the Branch Send 5 cts. for postage for Illustrated Catagonic.

ARIZONA.—The New Mexico Press says will be good news to their husiness that a colony is being formed in St. Louis for the purpose of locating near the headwaters of the Gila river, in Arizona Territory.

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